ABSTRACT

A process for producing a heat-resistant intermetallic compound Ni_3Al foil having a room-temperature ductility, which comprises a first step of arc-melting an alloy having a chemical composition containing Ni as a main component and Al to form a starting rod, a second step of growing the starting rod in columnar crystal form by unidirectional solidification, a third step of cutting out the unidirectionally solidified rod to form a plate, and a fourth step of cold-rolling the plate cut at room temperature to form a foil. The invention can provide a process for producing a thin Ni_3Al foil which has a thickness of 200 microns or less and which is excellent in high-temperature strength, oxidation and corrosion resistances and room-temperature ductility.